

REMARKS

The present application was filed on October 23, 2003 with claims 1-37. Claims 1, 17, 29-31 and 37 are the independent claims.

In the new non-final Office Action dated November 27, 2007, the Examiner has reopened prosecution after acknowledging that arguments in Appellants' Appeal Brief dated June 30, 2008 overcame the previous grounds of rejection. In reopening prosecution, the Examiner now: (i) rejects claims 1-35 and 37 under 35 U.S.C. §103(a) as being unpatentable over newly-cited U.S. Patent Application Publication No. 2004/0208120 (hereinafter "Shenoi") in view of newly-cited U.S. Patent No. 6,804,717 (hereinafter "Bakshi"); and (ii) rejected claim 36 under 35 U.S.C. §103(a) as being unpatentable over Shenoi in view of U.S. Patent Application Publication No. 2004/0003080 (hereinafter "Huff").

In this response, Applicants traverse the various §103(a) rejections, and amend the independent claims as indicated herein. Applicants note that the amendments made to the claims are not necessitated by any of the cited art, but rather are made to provide further clarification and to expedite allowance of the present application.

With regard to the §103(a) rejection of claims 1-35 and 37, Applicants assert that the cited combination fails to teach or suggest each and every limitation of claims 1-35 and 37 as alleged.

Independent claim 1, prior to the present amendments, recites a method of serving data to a plurality of clients in a client-server environment, comprising the steps of: providing a plurality of versions of data in which at least two versions have different overheads associated therewith; assigning individual clients to one of a plurality of quality-of-service classes; and satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve. Independent claims 17, 29-31 and 37 recite certain similar limitations, as well as other limitations. Advantageously, the claimed invention provides that clients belonging to higher quality of service classes may be given preferential access to higher quality content (i.e., in many cases, higher quality content requires more overhead to serve). This is accomplished, as recited, by providing a plurality of versions of data in which at least two versions have different overheads associated therewith.

In rejecting independent claims 1, 17, 29-31 and 37 based on the combination of Shenoi and Bakshi, the Examiner cites paragraph [0008] of Shenoi to suggest that the claim limitation of “providing a plurality of versions of data in which at least two versions have different overheads associated therewith” is taught therein. Paragraph [0008] of Shenoi reads:

Whereas packet-switched networking may have some significant advantages relative to circuit-switched networking, there are some disadvantages, primarily related to Quality of Service ("QoS"). Whereas the term QoS may evoke numerous and varied interpretations, the term is used here in a somewhat narrow manner. In particular, the notion of QoS, for the purposes of this discussion, is limited to a measure of time-delay variation. "High" QoS implies that the traffic is delivered from source to destination with a small time-delay variation (often called "jitter"); "low" QoS implies that the time-delay variation is not guaranteed to be small. Note that low QoS does not imply lower reliability; low QoS does not imply higher packet loss; low QoS does not imply lower throughput; in fact the term low QoS does not relate to a layman's view of low quality; for this discussion low QoS is simply equivalent to uncertainty in transmission delay. Certain types of traffic, such as computer-to-computer communication involving file transfers, can be assigned to low QoS channels with insignificant impact in performance. Other types of traffic, typically time-sensitive traffic such as a voice communication, require the channel to have a high QoS. Circuit-switched networks, which "nail" up bandwidth for a given call, generally provide a high QoS but can be viewed as bandwidth inefficient since the particular channel is not available for other traffic even during pauses; packetization is one way to improve transmission facility usage since the overall bandwidth is effectively shared between all active calls.

Applicants respectfully assert that the term “version” is being misinterpreted. By way of example only, the term “version” is commonly understood to mean: “a particular account of some matter, as from one person or source, contrasted with some other account: two different versions of the accident” or “a particular form or variant of something: a modern version of an antique,” see, e.g., Dictionary.com Unabridged, based on the Random House Dictionary, © Random House, Inc. 2009. That is, one might understand that given a story, one person may have a first version of the story, and another person may have a second version of the story. However, they are both referring to the same or similar story. In the other context given for the illustrative definition above, an item

may be represented in an antique version or a modern version. However, again, it is the same or similar item.

The claim limitation recites “providing a plurality of versions of data in which at least two versions have different overheads associated therewith.” Thus, the term “versions” is describing that there is one version of data and another version of the data, where each version of the data has a different overhead associated therewith. In order to make this even clearer, Applicants have amended the independent claims to indicate that the versions are two versions of the “given data.”

This is clearly not what Shenoi is teaching or suggesting. Shenoi states that “[c]ertain types of traffic, such as computer-to-computer communication involving file transfers, can be assigned to low QoS channels with insignificant impact in performance . . . [o]ther types of traffic, typically time-sensitive traffic such a voice communication, require the channel to have a high QoS.” Thus, Shenoi is not referring to different versions of the same data, Shenoi is referring to two different types of data, i.e., one type being files transferred between computers, and the other type being voice data.

Bakshi does not remedy this deficiency. The Office Action cites column 1, lines 21-25, of Bakshi, which reads:

QoS provides the ability to provision bandwidth and other resources so that different data service levels can be assigned to specific data types, applications, or users. With QoS, higher priority data types receive preferential access to bandwidth and other resources while lower priority data types still receive a minimally acceptable amount of bandwidth. Using RSVP (resource reservation setup protocol), an application can reserve resources to transmit the data along a route from a source to a destination. RSVP-enabled routers schedule and prioritize all of the packets of data to fulfill the QoS requirements. Thus, QoS can ensure a guaranteed level of end-to-end service by guaranteeing, for example, data throughput, data bandwidth and other resource sharing, e.g., a server on the Internet, to another location, e.g., the user, for a certain amount of time.

Thus, like Shenoi, Bakshi is referring to two different types of data (“specific data types”) rather than two versions of the same given data.

For at least the above reasons, the Shenoi/Bakshi combination fails to teach or suggest each and every limitation cited in independent claims 1, 17, 29-31 and 37.

Regarding the dependent claims of the present application, it is asserted that they are patentable over the cited references not only due to their dependence of respective ones of the above-mentioned independent claims, but also because such claims recite separately patentable subject matter.

Dependent claims 2 and 18 recite the overhead to serve a version is correlated with a quality of the version. For example, the high overhead version is typically of higher quality than the low overhead version (Specification, page 6, lines 7-8). Since Shenoi does not disclose provision of two versions of the given data, paragraph [0044] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

Dependent claims 3 and 19 recite the plurality of versions comprise images of different resolutions and clients belonging to a high quality-of-service class are given preferential access to higher resolution images. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0118] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

Dependent claims 4 and 20 recite the quality of a version is correlated with a processing time required to create the version. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0022] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

Dependent claims 5 and 21 recite the overhead to serve a version is correlated with how current the version is. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0106] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

Dependent claims 6 and 22 recite in response to a system load exceeding a threshold, satisfying a higher percentage of requests from clients belonging to a lower quality-of-service class with a version requiring lower overhead to serve. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0093] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

Regarding dependent claims 7 and 23, since Shenoi does not disclose provision of two versions of the given data, paragraph [0073] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

With regard to claims 8-11 and 24-27, since Shenoi does not disclose provision of two versions of the given data, paragraphs [0089] through [0092] of Shenoi (in combination with Bakshi) do not disclose the recited limitations.

Claims 12 and 28 recite a client request is routed using at least one of an identity of the client, a quality of content, a load on at least one server, a data distribution on at least one server, and a capacity of at least one server. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0028] of Shenoi (in combination with Bakshi) does not disclose the recited limitations.

With regard to claims 13, 14, 15 and 16, since Shenoi does not disclose provision of two versions of the given data, paragraphs [0035] and [0089] of Shenoi (in combination with Bakshi) do not disclose the recited limitations.

Regarding the rejection of claim 36 based on Shenoi and Huff, Applicants assert that said limitations are patentable for at least the reasons given above. Huff fails to remedy the above deficiencies.

In view of the above, Applicants believe that claims 1-37 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

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Respectfully submitted,



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